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Attorneys for Defendants, COUNTY OF LOS ANGELES, MARISOL BARAJAS and HECTOR VAZQUEZ

UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA, WESTERN DIVISION

JENNIE QUAN, individually and as successor in interest to BENJAMIN CHIN, deceased,

Plaintiff,

v.

COUNTY OF LOS ANGELES; MARISOL BARAJAS; HECTOR VAZQUEZ; and DOES 3-10, inclusive,

Defendants.

Case No. 2:24-cv-04805-MCS(KSx)

DEFENDANTS' OPPOSITION TO PLAINTIFF'S MOTION IN LIMINE NO. 3 TO EXCLUDE OPINIONS OF DEFENSE EXPERT JOHN MAREHBIAN, MD NOT DISCLOSED IN REBUTTAL REPORT

Date: January 26, 2026
Time: 2:00 p.m.
Crtrm: 7C

[Assigned to Hon. Mark C. Scarsi, Courtroom "7C"]

TO THE HONORABLE COURT, ALL PARTIES AND THEIR ATTORNEYS OF RECORD:

Defendants MARISOL BARAJAS, HECTOR VAZQUEZ and COUNTY OF LOS ANGELES (collectively, "Defendants") hereby submit their opposition to Plaintiff's Motion in Limine No. 3 to Exclude Opinions of Defense Expert John Marehbian Not Disclosed in Rebuttal Report ("Motion").

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MEMORANDUM OF POINTS AND AUTHORITIES

I. INTRODUCTION

Defendants retained Dr. Johnathon Marehbian, MD, a board-certified neurologist, to serve as their rebuttal expert to Dr. Bennet Omalu, MD, Plaintiff JENNIE QUAN's forensic pathologist. Dr. Omalu prepared a Rule 26 expert report opining that Benjamin Chin ("Decedent") experienced pain and suffering for approximately 11 hours and 27 minutes. According to Dr. Omalu, the Decedent's pain and suffering began at 11:36 a.m., *before* the Decedent was shot by the Defendant Deputies, and lasted until the Decedent was pronounced dead at Pomona Valley Hospital later that day at 11:09 p.m. Bennet Omalu's, MD, Rule 26 Report, p. 19. Despite the Decedent arriving at Pomona Valley Hospital with a Glasgow score of 3/15, which represents a comatose patient and is the lowest possible score of consciousness, Dr. Omalu concludes that the Decedent continued to experience pain and suffering while unconscious and alive.

Dr. Marehbian's expert report acknowledges that the Decedent likely experienced pain after the shooting, but denies that the Decedent experienced pain and suffering after he lost consciousness. Through a detailed medical explanation of trauma's effects on the body, Dr. Marehbian underscores the contradictions in Dr. Omalu's reasoning that the Decedent continued to suffer pain after loss of consciousness. In addition, a discussion of the length of the Decedent's pain and suffering inherently requires a discussion of the quality of the Decedent's pain and suffering. In his deposition, Dr. Marehbian further explained how the physiological effects experienced by the Decedent, such as shock, could diminish an individual's ability to perceive pain. He also provided testimony that fentanyl and propofol, both administered to the Decedent, would inhibit the Decedent's ability to perceive pain. Defendants can only guess that these are the statements Plaintiff seeks to exclude from trial because her Motion does not specifically identify the opinions at issue.

The physiological changes the Decedent experienced after he was shot, and the

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drugs he was administered, were discussed in Dr. Omalu's initial report and Dr. Marehbian's rebuttal report, and are thus mere elaborations by Dr. Marehbian. Plaintiff now improperly seeks to exclude Dr. Marehbian's opinions that the Decedent's conscious pain and suffering might have been mitigated by these effects.

II. LEGAL STANDARD

A. Plaintiff's Motion in Limine Fails the Court's Specificity Requirements

Plaintiff's Motion should be denied because it fails to state with specificity the evidence that Plaintiff seeks to exclude. "A motion in limine is a procedural mechanism to limit in advance testimony or evidence in a particular area." *United States v. Heller*, 551 F.3d 1108, 1111 (9th Cir. 2009). "[M]otions in limine must identify the evidence at issue and state with specificity why such evidence is inadmissible." *Colton Crane Co., LLC v. Terex Cranes Wilmington. Inc.*, No. 08-CV-08525-PSG (PJWx), 2010 WL 2035800, at *1 (C.D. Cal. May 19, 2010). The "failure to specify the evidence" that a motion in limine "seek[s] to exclude constitutes a sufficient basis upon which to deny th[e] motion." *Bullard v. Wastequip Mfg. Co. LLC*, No. 14-CV-01309-MMM, 2015 WL 13757143, at *7 (C.D. Cal. May 4, 2015).

"Trial courts have broad discretion when ruling on motions in limine." *Matrix Int'l Textile, Inc. v. Monopoly Textile, Inc.*, No. 2.16-CV-0084-FMO-AJW, 2017 WL 2929377, at * 1 (C.D. Cal. May 14, 2017). Such rulings are "not binding on the trial judge, and the judge may always change his mind during the course of a trial." *Ohler v. United States*, 529 U.S. 753, 758 (2000). "Denial of a motion in limine does not necessarily mean that all evidence contemplated by the motion will be admitted at trial. Denial merely means that without the context of trial, the court is unable to determine whether the evidence in question should be excluded." Matrix Int'l Textile, 2017 WL 2929377, at *1 (citation omitted).

Here, it is unclear specifically which testimony Plaintiff is trying to exclude by Dr. Marehbian. The Motion only states that "Dr. Marehbian offered new opinions

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regarding the variable levels of pain Decedent experienced while still awake and responsive." Dkt. 68 (Plaintiff's Motion in Limine No. 3) p. 4:18-19. Plaintiff does not identify which of Dr. Marehbian's opinions she considers to be "new" or undisclosed in Dr. Marehbian's rebuttal report, making it impossible for Defendants to rebut Plaintiff's claims. As will be discussed further below, "courts do not require verbatim consistency [between an expert's testimony and] the report, but allow testimony which is consistent with the report and is a reasonable synthesis and/or elaboration of the opinions contained in the expert's report. *Fujifilm Corp. v. Motorola Mobility LLC*, 2015 WL 12622055, at *4 (N.D. Cal. Mar. 19, 2015) (quoting *Cube Corp.*, 809 F. Supp. 2d at 347). Without knowing the specific testimony Plaintiff seeks to exclude, Defendants are left to guess which opinions expressed by Dr. Marehbian in his deposition Plaintiff moves to preclude. Granting Plaintiff's Motion would therefore be unduly prejudicial to Defendants and should be denied in its entirety.

B. The Opinions Expressed by Dr. Marehbian in His Deposition Were Sufficiently Disclosed in His Rule 26 Report

It is anticipated that Plaintiff seeks to preclude Dr. Marehbian's opinions that the Decedent's conscious pain and suffering were mitigated by loss of oxygen, the administration of drugs, and/or his body experiencing hypovolemic shock. While an expert report must identify the expert's opinions and the basis for those opinions, "courts do not require verbatim consistency [between an expert's testimony and] the report, but allow testimony which is consistent with the report and is a reasonable synthesis and/or elaboration of the opinions contained in the expert's report." *Fujifilm Corp., supra*, , at *4. Thus "insignificant [variations]" that "do[] not represent . . . new and undisclosed opinion" do not "warrant exclusion under Rule 37." *Takeda Pharm. Co. v. TWi Pharms., Inc.*, 2013 WL 12164680, at *24 (N.D. Cal. May 20, 2013); *see Sportspower Ltd. v. Crowntec Fitness Mfg. Ltd.*, 2020 WL 7347860, at *3 (C.D. Cal. Nov. 18, 2020) (denying motion to exclude expert testimony allegedly

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"outside of his report" because the testimony was not "an alternate or different opinion" but was "consistent" with his report).

Here, Dr. Marehbian outlined in his report the physiological effects that the Decedent likely experienced after suffering two gunshot wounds, such as hypovolemic shock, traumatic cardiac arrest, and anoxic encephalopathy. Marehbian Report, p. 6. Many of the opinions expressed by Dr. Marehbian align with the physiological changes proposed by Dr. Omalu in his Rule 26 report. *See* Bennet Omalu's, MD, Rule 26 Report, p. 14 ("[t]he primary mechanisms of death for the types of gunshot wounds Benjamin Chin suffered, as have been described above involved traumatic blood loss, hemorrhagic and hypovolemic traumatic shock, hypovolemia, hypoperfusion of the brain, global hypoxic-ischemic brain injury, brain death, cardiac arrest, and death".) Where the two expert physicians diverge is the Decedent's ability to feel pain while undergoing these physiological changes and propofol/fentanyl administration, and to what length and degree. Dr. Marehbian's opinions that the physiological changes experienced by the Decedent and the drug administration he received after the shooting may have mitigated his pain and suffering is merely an elaboration of opinions discussed by both Dr. Omalu and himself in their Rule 26 reports. Accordingly, Dr. Marehbian's opinions concerning the variable levels of pain the Decedent may have suffered while conscious should be admitted.

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III. CONCLUSION

Based on the foregoing, Plaintiff's Motion in Limine No. 3 should be denied.

DATED: January 12, 2026 HURRELL-LLP

By: */s/ Jerad J. Miller*
THOMAS C. HURRELL
JOSEPH K. MILLER
JERAD J. MILLER
Attorneys for Defendants, COUNTY OF LOS ANGELES, MARISOL BARAJAS and HECTOR VAZQUEZ

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DECLARATION OF JERAD J. MILLER

I, Jerad J. Miller, declare:

1. I am an attorney duly licensed to practice before this Court and am an associate with Hurrell-LLP, attorneys of record for MARISOL BARAJAS, HECTOR VAZQUEZ and COUNTY OF LOS ANGELES herein. The facts set forth herein are of my own personal knowledge and if sworn I could and would testify competently thereto.

2. The parties met and conferred on December 22, 2025 to discuss Plaintiff's Motion in Limine No. 3. An agreement regarding Jonathan Marehbian's, MD, expert testimony could not be reached, and Plaintiff proceeded with the filing of the motion herein.

3. This declaration is made in support of Defendants' Opposition to Plaintiff's Motion in Limine No. 3 to Exclude Opinions of Defense Expert John Marehbian Not Disclosed in Rebuttal Report.

4. Attached as Exhibit A is a true and correct copy of Plaintiff's Motion in Limine No. 3 to Exclude Opinions of Defense Expert John Marehbian Not Disclosed in Rebuttal Report.

5. Attached as Exhibit B is a true and correct copy of Dr. Marehbian's Rule 26 Rebuttal Report.

6. Attached as Exhibit C is a true and correct copy of Bennet Omalu's, MD, expert report.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on January 12, 2026, at Los Angeles, California.

/s/ Jerad J. Miller
Jerad J. Miller

EXHIBIT “A”

LAW OFFICES OF DALE K. GALIPO
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Attorneys for Plaintiff

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

JENNIE QUAN, individually and as successor in interest to BENJAMIN CHIN, deceased,

Plaintiffs,

vs.

COUNTY OF LOS ANGELES; MARISOL BARAJAS; HECTOR VAZQUEZ; and DOES 3-10, inclusive,

Defendants.

Case No. 2:24-cv-04805-MCS-KS

Assigned to:
Hon Mark C. Scarsi
Hon. Mag. Judge Karen L. Stevenson

PLAINTIFF'S NOTICE OF MOTION AND MOTION IN LIMINE NO. 3 TO EXCLUDE OPINIONS OF DEFENSE EXPERT JOHN MARAHEBIAN, MD NOT DISCLOSED IN REBUTTAL REPORT

Final Pretrial Conference:
Date: January 26, 2026
Time: 2:00 p.m.
Crtrm: 7C

Trial:
Date: February 10, 2026

TO THE HONORABLE COURT, ALL PARTIES, AND THEIR ATTORNEYS OF RECORD:

PLEASE TAKE NOTICE THAT that Plaintiff Jennie Quan hereby moves the Court, by way of this Motion in Limine No. 3, to exclude defense expert John Marahebian, MD, from offering certain opinions that were not initially disclosed in his rebuttal report. Plaintiff makes this Motion under Federal Rules of Procedure 26 and 37.

Statement of Local Rule 7-3 Compliance: This motion is made following a conference of counsel during which no resolution could be reached.

This Motion is based on this Notice of Motion, the Memorandum of Points and Authorities, the records and files of this Court, and upon such other oral and documentary evidence as may be presented at the time of the hearing.

DATED: January 5, 2026 LAW OFFICES OF DALE K. GALIPO

By */s/ Hang D. Le*
Dale K. Galipo
Hang D. Le
Attorneys for Plaintiff

Cohlmia v. Ardent Health Servs., LLC, 254 F.R.D. 426, 433 (N.D. Okla.2008)). Rule 37(c)(2) "give teeth" to the disclosure requirements under Rule 26(a) "by forbidding the use at trial of any information required to be disclosed" that was not properly disclosed. *Yeti by Molly, Ltd. v. Deckers Outdoor Corp.*, 259 F.3d 1101, 1106 (9th Cir. 2001)

III. DR. MAREHBIAN'S UNTIMELY OPINIONS SHOULD BE EXCLUDED

Dr. Marehbian's report states that it "specifically addresses Dr. Omalu's conclusions concering the presence and duration of conscious pain and suffering experienced by Mr. Benjamin Chin." (Ex. 5 to Le Decl., Marehbian Report at 1). His report goes on to specifically rebut Dr. Omalu's contention that Decedent experienced pain and suffering starting when he first encountered law enforcement and ending with "the complete cessation of al bodily functions, including cardiac and respiratory arrest." Dr. Marehbian opines that Decedent experienced "at most, a short-lived period of pain in the immediate after of the injury" and that by the time Decedent was admitted into the hospital with a Glasgow Coma Scale score of 3/15, "there was a total loss of consciousness" and therefore, he could not have experienced pain and suffering after that time. (*Id.* at 5, 8). Later at his deposition, Dr. Marehbian offered new opinions regarding the variable levels of pain Decedent experienced while still awake and responsive. This opinion is untimely as it was not expressed in any way in his report. Accordingly, Dr. Marehbian should be precluded from offering such new opinions, pursant to Rule 37(c).

IV. CONCLUSION

For the foregoing reasons, Plaintiff respectfully requests the Court preclude defense expert Dr. John Marehbian from testifying on subjects or offering opinions that were not initially disclosed in his rebuttal report.

Respectfully submitted,

DATED: January 5, 2026 LAW OFFICES OF DALE K. GALIPO

By */s/ Hang D. Le*
Dale K. Galipo
Hang D. Le
Attorneys for Plaintiff

EXHIBIT “B”

Jonathan Marehbian MD
Diplomate American Board of Psychiatry & Neurology (Neurology)
Specialty in Emergency Neurology

Date: November 3, 2025

Jerad J. Miller
Attorney
Hurrell Cantrall LLP
800 West 6th Street, Suite 700
Los Angeles, CA 90017-2710

Re: Expert Rebuttal Opinion of Dr. Marehbian to the report of Dr. Omalu in the matter of *Jennie Quan, individually and as successor in interest to Benjamin Chin, deceased, v. County of Los Angeles, Marisol Barajas, et al;* Case No.: 2:24-cv-04805-MCS-KS

Date of Birth: January 6, 1993
Date of Incident: June 19, 2023

Dear Mr. Miller,

Please find attached my expert rebuttal regarding the opinions expressed by Dr. Bennet Omalu, in his report dated October 18, 2025, in the above-referenced matter. This report specifically addresses Dr. Omalu's conclusions concerning the presence and duration of conscious pain and suffering experienced by Mr. Benjamin Chin. My analysis is limited strictly to the scope of rebutting Dr. Omalu's report and does not introduce any new independent opinions or alternative causation theories.

All conclusions expressed in the attached rebuttal are stated to a reasonable degree of medical certainty and are based on my detailed review of the materials listed below. I have not conducted any independent medical examinations. My role in this matter is that of an expert medical reviewer, evaluating the scientific validity and internal consistency of Dr. Omalu's findings within the framework of established neurological and critical care principles.

If additional records, data, or materials become available, I reserve the right to amend, supplement, or modify my opinions accordingly to ensure that they remain accurate and complete.

Please do not hesitate to contact me should you require clarification or additional information.

Material Reviewed for This Report

- **Plaintiff's First Amended Complaint**
- **Plaintiff's Expert Disclosures and Reports:** Including Report of Dr. Bennet Omalu.
- **Decedent's Medical Records:** Pomona Valley Hospital Medical Center records.
- **Pathology/Forensic Documents:** Autopsy Report of Benjamin Chin.
- **Investigative Materials:**
    - Quan Homicide File (including supplemental reports of responding deputies).
    - Supplemental reports of responding deputies
    - Body-worn camera footage of Deputy Barajas and Detective Vazquez sync'd and of a Deputy and EMS providing medical care to Decedent Benjamin Chin.
- **Prior Expert Opinions (For Context):**
    - Defense expert Ed Flosi's report re: police practices.
    - Defense expert Joel Suss' report re: human factors.

Jonathan Marehbian, MD.

Neurology and Emergency Neurology

NPI:1972875730

report simultaneously suggests that Mr. Chin's conscious suffering may have continued for "less than 14 minutes" following the shooting and that "pain and suffering persisted until the complete cessation of all bodily functions, including cardiac and respiratory arrest." These positions are mutually incompatible.

Mr. Chin's autopsy and operative findings document a Grade V liver laceration, a wound explicitly described as rapidly fatal, producing immediate exsanguination and loss of cerebral perfusion. The biological window for any residual consciousness in such an injury is measured in minutes, not hours. Once cerebral oxygenation drops below the metabolic threshold for synaptic transmission, integrated cortical function ceases, marking the end of awareness. This conclusion is consistent with established medical understanding of brain physiology under traumatic shock.

The subsequent GCS 3 coma reflected complete central nervous system collapse due to hypovolemic shock, traumatic cardiac arrest, and anoxic encephalopathy. Laboratory data confirmed profound metabolic acidosis and coagulopathy, accompanied by lower body temperatures, consistent with ongoing circulatory collapse and conditions incompatible with sustained cerebral perfusion or awareness. These converging mechanisms abolished all neural network connectivity, including the frontoparietal and cingulo-insular systems required for conscious pain perception.

From that point forward, Mr. Chin's medical course was sustained exclusively by mechanical ventilation, transfusion, and pharmacologic support. He remained under continuous infusion of propofol and fentanyl, which ensured total suppression of cortical activity and nociceptive awareness. Propofol produces generalized cortical inhibition, while fentanyl blocks both sensory-discriminative and emotional-affective components of pain. Together they constitute a chemical and ethical guarantee against any form of consciousness, pain, or suffering. Thus, while circulation was mechanically supported for approximately 11 hours, this time represented biological maintenance of an unconscious body, not prolonged conscious suffering.

Dr. Omalu's report contains fundamental internal contradictions regarding the neuroanatomy of pain and suffering. He oscillates between two incompatible models, one acknowledging the necessity of cortical activity for conscious pain, and another asserting that reflexive or subcortical processes alone suffice.

Dr. Omalu concludes that pain and suffering persist "until the complete cessation of all bodily functions, including cardiac and respiratory arrest." This is a metaphysical proposition, not a medical one. Pain and suffering are dependent on active neural processing. Once circulation and oxygenation to the brain cease, neurons depolarize and synaptic transmission halts within seconds. Without brain activity, there can be no perception, emotion, or awareness.

The objective record demonstrates that Mr. Chin experienced, at most, a short-lived period of conscious pain in the immediate aftermath of injury, lasting no more than a few minutes. Thereafter, he was in a state of irreversible coma, compounded by pharmacologic suppression and loss of cortical activity. The remaining 11 hours were characterized by mechanical and pharmacologic support of an unconscious patient who underwent repeated life-saving surgical interventions.

Dr. Omalu's opinion attributes nearly all of this survival time to "conscious suffering" based on a self-refuting redefinition of pain. His report simultaneously requires and denies cortical participation, treating reflexive activity as subjective experience. The result is a theory that contradicts itself at every critical juncture.

In summary, conscious pain was brief and biologically limited to the immediate post-injury period. Loss of awareness likely occurred earlier, during pre-hospital care, as suggested by the rapid physiological collapse observed at the scene, though confirmation awaits review of the EMS records. By 11:59 a.m., and almost certainly before that time, there was total loss of consciousness, confirmed by objective neurological findings and sustained pharmacologic coma. The claim of suffering persisting for 11 hours is medically indefensible, internally inconsistent, and unsupported by any known principles of neuroscience.

Jonathan Marehbian, MD.
Neurology and Emergency Neurology
NPI:1972875730

EXHIBIT “C”

Bennet Omalu
PATHOLOGY

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Autopsy and Anatomic Pathology
Clinical Pathology and Toxicology
Forensic Pathology

Neuropathology
Epidemiology
Medico-Legal Consultations

Dale Galipo, Esq.
The Law Offices of Dale K. Galipo
21800 Burbank Blvd., Suite 310
Woodland Hills, CA 91367

October 18, 2025

Dear Mr. Galipo,

Re: Benjamin Edward Huan Ming Chin, Deceased
Medico-Legal Report

Summary of Education, Training and Experience

I completed medical school in 1990 at the University of Nigeria, Enugu, Nigeria. Upon graduating from medical school, I completed a one-year clinical housemanship at the University of Nigeria Teaching Hospital in the fields of Pediatrics, Internal Medicine, General Surgery, Obstetrics, and Gynecology. After housemanship, I worked as an emergency room physician at a university hospital in Nigeria for approximately three years. I sat for and passed my United States Medical Licensing Examinations [USMLE] while I worked as an emergency room physician. I came to the United States in 1994 through a World Health Organization scholarship to become a visiting research scholar for eight months at the Department of Epidemiology, Graduate School of Public Health, University of Washington, Seattle, Washington.

In 1995, I proceeded to the College of Physicians and Surgeons of Columbia University, New York, at Harlem Hospital Center, to complete residency training in Anatomic Pathology and Clinical Pathology. In 1999, I proceeded to the University of Pittsburgh in Pittsburgh, Pennsylvania, to complete residency training in Forensic Pathology and Neuropathology. I hold four board certifications in Anatomic Pathology, Clinical Pathology, Forensic Pathology and Neuropathology. I also hold a Masters in Public Health [MPH] in Epidemiology from the Graduate School of Public Health at the University of Pittsburgh in Pittsburgh, Pennsylvania. I also hold a Masters in Business Administration [MBA] degree from the Tepper School of Business at Carnegie Mellon University in Pittsburgh, Pennsylvania, one of the leading business schools in the world. I am a Certified Physician Executive and an Honorary Fellow of the American Association of Physician Leadership [AAPL]. I also hold a fifth board certification in Medical Management from the AAPL. I am currently licensed to practice Medicine and Surgery in the State of California.

I am currently the President and Medical Director of Bennet Omalu Pathology [BOP], a California medico-legal consulting firm, and a Clinical Professor at the Department of Medical

of the brainstem. As long as the reticular activating system remains anatomically and electrochemically intact, an individual like Benjamin Chin will remain conscious and will feel pain and experience suffering. The sensation of pain induces conscious suffering since pain is a noxious sensation, which stimulates the neocortex, limbic cortex, and forebrain to cause mental pain and suffering. All these neural processes occur in 1000^{ths} of a second [milliseconds]. The human nervous system is one of the most efficient, effective, and optimal operating systems ever known to humankind. After centuries of empirical research humankind has not been able to fully decipher and reproduce the operating systems of the human brain and nervous system.

The primary mechanisms of death for the types of gunshot wounds Benjamin Chin suffered, as have been described above involved traumatic blood loss, hemorrhagic and hypovolemic traumatic shock, hypovolemia, hypoperfusion of the brain, global hypoxic-ischemic brain injury, brain death, cardiac arrest, and death. The human brain is a post-mitotic organ and can only survive on oxygen and glucose, which are supplied by blood that comes from the heart, primarily in the internal carotid arteries and the vertebral arteries. While the brain is only about 2-3% of the body weight, it receives approximately 15% of the cardiac output at a rate of 750-900 ml/min of blood. The normal range of perfusion of the brain is about 50 to 65 ml/100 g/min [80-100 ml/100g/min for the gray matter and 20—25 ml/100g/min for the white matter, at a rate of oxygen consumption of 3.5 ml/100 g/min. The normal brain tissue partial pressure of oxygen is 35 to 40 mmHg. Brain tissue oxygen levels below 30 mmHg may cause brain tissue injury, and at 20 mmHg, the risk of brain damage becomes exponentially elevated. The threshold for brain infarction is 10-12 ml/100g/min of blood supply with neuronal injury and death beginning in 60 to 180 seconds.

Being a post-mitotic organ, the human brain does not have any reasonable capacity to regenerate itself. This means that when the human brain suffers any type of irreversible injury, that injury is permanent and cannot be reversed or cured by the brain or by medical therapy. There are so many types of brain injuries. Hypoxic-ischemic brain injury due to hypo-perfusion or non-perfusion of the brain gunshot wounds is only one type of brain injury. For the human brain to suffer irreversible hypoxic-ischemic brain injury, there has to be an impaired supply of oxygen and blood to the brain. The established and generally accepted median or mean reference threshold for irreversible hypoxic-ischemic brain damage to occur is 3 to 5 minutes in cumulative time. This means that irreversible brain damage can occur in less than 3 minutes or in more than 5 minutes, but with a mean or median time of close to 3 to 5 minutes.

Pain is a basic, vegetative, and primitive human reflex with a primary objective of alerting the person to remove himself from imminent danger. Given that pain is a primitive reflex, patients who are alive but are suffering from a disorder of consciousness still experience pain and suffering. There is no rigid demarcation between consciousness and unconsciousness. It is a continuum or spectrum of physiological functioning, however, there are broad varying degrees of disorders of consciousness with broad varying degrees of pain and suffering physiology and biochemistry[13-16]. We cannot reasonably differentiate or quantitate the degree of pain and suffering; rather it is a qualitative question of whether a person experiences pain or not. Therefore, pain and suffering are present in all persons with disorders of consciousness and should be adequately treated[14,17-20]. In the non-communicative, unconscious patient, the most relevant aspects of response to pain are physiologic (i.e., modification in the vital parameters such as heart rate and respiration) and behavioral (i.e., modification in the facial expression, motor and visual response)[21-23].

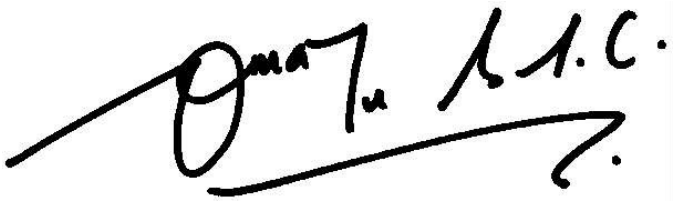
injuries he suffered. His conscious mental, somatic and biochemical pain and suffering began at about 11:36 a.m. when he first encountered the police, continued through the time he was shot at about 11:45 a.m. and through the onset and sustenance of his traumatic shock, ending at about 3-5 minutes after he was shot and began suffering global hypoxic-ischemic brain injury, for a composite mean, mode and median period of less than 14 minutes[17,18]. He was transferred to the hospital and was eventually pronounced dead at about 11:09 p.m. on 06/19/2023. He suffered pre-death pain and suffering for a mean, mode, and median period of less than 12 hours [11 hours 27 minutes] beginning from 11:36 a.m. and ending at 11:09 p.m.[19,20].

I have provided all my opinions and conclusions with a reasonable degree of medical certainty.

I reserve the right to amend, supplement, revise and/or modify my opinions and report, up and to the time of trial, should additional information become available.

Thank you.

Very truly yours,



Bennet I. Omalu, MD, MBA, MPH, CPE, DABP-AP,CP,FP,NP
Clinical Pathologist, Anatomic Pathologist, Forensic Pathologist, Neuropathologist, Epidemiologist
President and Medical Director, Bennet Omalu Pathology

[17] Medicine is not an absolute science, and these estimated ranges should not be interpreted as absolute quantitative estimations of time. Quantitative ranges of any measurable index are common practice and are the standard of practice in pathology and medicine in part based on the principles of the central limit theorem.
[18] Human events like loss of consciousness and death involve a continuum of pathophysiological events on the cellular and gross functional levels without any identifiable rigid transitions or demarcations. Therefore, the determination of the time of occurrence of these events are guided by the time the events have been reproducibly and quantifiably confirmed. For example, the time of death of any individual is determined by the time the individual was pronounced dead by a designated medical professional who has clinically assessed the patient and confirmed the patient to be dead based on prevailing, reproducible and quantifiable clinical evidence that the patient was dead.
[19] Medicine is not an absolute science, and these estimated ranges should not be interpreted as absolute quantitative estimations of time. Quantitative ranges of any measurable index are common practice and are the standard of practice in pathology and medicine, in part based on the principles of the central limit theorem.
[20] Human events like loss of consciousness and death involve a continuum of pathophysiological events on the cellular and gross functional levels without any identifiable rigid transitions or demarcations. Therefore, the determination of the time of occurrence of these events are guided by the time the events have been reproducibly and quantifiably confirmed. For example, the time of death of any individual is determined by the time the individual was pronounced dead by a designated medical professional who has clinically assessed the patient and confirmed the patient to be dead based on prevailing, reproducible and quantifiable clinical evidence that the patient was dead.